

104TH CONGRESS  
2D SESSION

# H. R. 3602

To reduce the hazards of dam failures, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

JUNE 6, 1996

Mr. ZELIFF (for himself, Mr. PETE GEREN of Texas, Mr. CLINGER, Mr. EHLERS, Mr. EMERSON, and Mr. COBLE) introduced the following bill; which was referred to the Committee on Transportation and Infrastructure

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## A BILL

To reduce the hazards of dam failures, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “National Dam Safety  
5       Program Act of 1996”.

6       **SEC. 2. FINDINGS.**

7       Congress finds the following:

8               (1) Dams are an essential part of the national  
9       infrastructure. Dams fail from time to time with cat-

1       astrophic results; thus, dam safety is a vital public  
2       concern.

3               (2) Dam failures have caused, and can cause in  
4       the future, enormous loss of life, injury, destruction  
5       of property, and economic and social disruption.

6               (3) Some dams are at or near the end of their  
7       structural, useful, or operational life. With respect to  
8       future dam failures, the loss, destruction, and dis-  
9       ruption can be substantially reduced through the de-  
10      velopment and implementation of dam safety hazard  
11      reduction measures, including—

12               (A) improved design and construction  
13      standards and practices supported by a national  
14      dam performance resource bank;

15               (B) safe operations and maintenance pro-  
16      cedures;

17               (C) early warning systems;

18               (D) coordinated emergency preparedness  
19      plans; and

20               (E) public awareness and involvement pro-  
21      grams.

22               (4) Dam safety problems persist nationwide.  
23      The diversity in Federal and State dam safety pro-  
24      grams calls for national leadership in a cooperative  
25      effort involving Federal and State governments and

1 the private sector. An expertly staffed and ade-  
2 quately financed dam safety hazard reduction pro-  
3 gram, based on Federal, State, local, and private re-  
4 search, planning, decisionmaking, and contributions,  
5 would reduce the risk of such loss, destruction, and  
6 disruption from dam failure by an amount far great-  
7 er than the cost of such program.

8 (5) There is a fundamental need for a national  
9 dam safety program and the need will continue. An  
10 effective national program in dam safety hazards re-  
11 duction will require input from and review by Fed-  
12 eral and non-Federal experts in dams design, con-  
13 struction, operation, and maintenance and in the  
14 practical application of dam failure hazards reduc-  
15 tion measures. At the present time, there is no na-  
16 tional dam safety program.

17 (6) The coordinating authority for national  
18 leadership is provided through the Federal Emer-  
19 gency Management Agency's (hereinafter in this Act  
20 referred to as "FEMA") dam safety program  
21 through Executive Order 12148 in coordination with  
22 appropriate Federal agencies and the States.

23 (7) While FEMA's dam safety program shall  
24 continue as a proper Federal undertaking and shall  
25 provide the foundation for a National Dam Safety

1 Program, statutory authority to meet increasing  
2 needs and to discharge Federal responsibilities in  
3 national dam safety is needed.

4 (8) Statutory authority will strengthen FEMA's  
5 leadership role, will codify the national dam safety  
6 program, and will authorize the Director of FEMA  
7 (hereinafter in this Act referred to as the "Direc-  
8 tor") to communicate directly with Congress on au-  
9 thorizations and appropriations and to build upon  
10 the hazard reduction aspects of national dam safety.

11 **SEC. 3. PURPOSE.**

12 It is the purpose of this Act to reduce the risks to  
13 life and property from dam failure in the United States  
14 through the establishment and maintenance of an effective  
15 national dam safety program which will bring together the  
16 Federal and non-Federal communities' expertise and re-  
17 sources to achieve national dam safety hazard reduction.

18 It is not the intent of this Act to preempt any other Fed-  
19 eral or State authorities nor is the intent of this Act to  
20 mandate State participation in the grant assistance pro-  
21 gram to be established under this Act. This Act does not  
22 apply to levees.

23 **SEC. 4. DEFINITIONS.**

24 In this Act, the following definitions apply:

1           (1) FEDERAL AGENCY.—The term “Federal  
2       agency” means any Federal agency that designs, fi-  
3       nances, constructs, owns, operates, maintains, or  
4       regulates the construction, operation, or mainte-  
5       nance of any dam.

6           (2) NON-FEDERAL AGENCY.—The term “non-  
7       Federal agency” means any State agency that has  
8       regulatory authority over the safety of non-Federal  
9       dams.

10          (3) FEDERAL GUIDELINES FOR DAM SAFETY.—  
11       The term “Federal Guidelines for Dam Safety” re-  
12       fers to a FEMA publication number 93, dated June  
13       1979, which defines management practices for dam  
14       safety at all Federal agencies.

15          (4) PROGRAM.—The term “program” means  
16       the national dam safety program established under  
17       section 6.

18          (5) DAM.—The term “dam” means any artifi-  
19       cial barrier with the ability to impound water,  
20       wastewater, or liquid-borne materials for the purpose  
21       of storage or control of water which is—

22                (A) 25 feet or more in height from (i) the  
23                natural bed of the stream or watercourse meas-  
24                ured at the downstream toe of the barrier, or  
25                (ii) from the lowest elevation of the outside

1 limit of the barrier if the barrier is not across  
2 a stream channel or watercourse, to the maxi-  
3 mum water storage elevation; or

4 (B) has an impounding capacity for maxi-  
5 mum storage elevation of 50 acre-feet or more.

6 Such term does not include any such barrier which  
7 is not greater than 6 feet in height regardless of  
8 storage capacity or which has a storage capacity at  
9 maximum water storage elevation not greater than  
10 15 acre-feet regardless of height, unless such bar-  
11 rier, due to its location or other physical characteris-  
12 tics, is likely to pose a significant threat to human  
13 life or property in the event of its failure.

14 (6) HAZARD REDUCTION.—The term “hazard  
15 reduction” means those efforts utilized to reduce the  
16 potential consequences of dam failure to life and  
17 property.

18 (7) STATE.—The term “State” means each of  
19 the 50 States of the United States, the District of  
20 Columbia, the Commonwealth of Puerto Rico, the  
21 Virgin Islands, Guam, American Samoa, the Com-  
22 monwealth of the Northern Mariana Islands, and  
23 any other territory or possession of the United  
24 States.

1           (8) PARTICIPATING STATE.—The term “partici-  
2       pating State” means any State that elects to partici-  
3       pate in the grant assistance program established  
4       under this Act.

5           (9) UNITED STATES.—The term “United  
6       States” means, when used in a geographical sense,  
7       all of the States.

8           (10) MODEL STATE DAM SAFETY PROGRAM.—  
9       The term “Model State Dam Safety Program” re-  
10      fers to a document, published by FEMA (No. 123,  
11      dated April 1987) and its amendments, developed by  
12      State dam safety officials, which acts as a guideline  
13      to State dam safety agencies for establishing a dam  
14      safety regulatory program or improving an already-  
15      established program.

16 **SEC. 5. NATIONAL DAM SAFETY PROGRAM.**

17       (a) AUTHORITY.—The Director, in consultation with  
18      appropriate Federal agencies, State dam safety agencies,  
19      and the national review board established by subsection  
20      (e)(3), shall establish and maintain, in accordance with  
21      the provisions and policies of this Act, a coordinated na-  
22      tional dam safety program. This program shall—

23           (1) be administered by FEMA to achieve the  
24      objectives set forth in subsection (c);

1           (2) involve, where appropriate, the Departments  
2       of Agriculture, Defense, Energy, Interior, and  
3       Labor, the Federal Energy Regulatory Commission,  
4       the Nuclear Regulatory Commission, the Inter-  
5       national Boundaries Commission (United States sec-  
6       tion), the Tennessee Valley Authority, and FEMA;  
7       and

8           (3) include each of the components described in  
9       subsection (d), the implementation plan described in  
10      subsection (e), and the assistance for State dam  
11      safety programs to be provided under this Act.

12      (b) DUTIES.—The Director—

13           (1) within 270 days after the date of the enact-  
14      ment of this Act, shall develop the implementation  
15      plan described in subsection (e);

16           (2) within 300 days after such date of enact-  
17      ment, shall submit to the appropriate authorizing  
18      committees of Congress the implementation plan de-  
19      scribed in subsection (e); and

20           (3) by rule within 360 days after such date of  
21      enactment—

22           (A) shall develop and implement the na-  
23      tional dam safety program under this section;



1 (B) shall establish goals, priorities, and  
2 target dates for implementation of the program;  
3 and

4 (C) shall provide a method for cooperation  
5 and coordination with, and assistance to (as  
6 feasible), interested governmental entities in all  
7 States.

8 (c) OBJECTIVES.—The objectives of the national dam  
9 safety program are as follows:

10 (1) To ensure that new and existing dams are  
11 safe through the development of technologically and  
12 economically feasible programs and procedures for  
13 national dam safety hazard reduction.

14 (2) To encourage acceptable engineering poli-  
15 cies and procedures used for dam site investigation,  
16 design, construction, operation and maintenance,  
17 and emergency preparedness.

18 (3) To encourage establishment and implemen-  
19 tation of effective dam safety programs in each par-  
20 ticipating State based on State standards.

21 (4) To develop and encourage public awareness  
22 projects to increase public acceptance and support of  
23 State dam safety programs.

24 (5) To develop technical assistance materials  
25 for Federal and non-Federal dam safety programs.

1           (6) To develop mechanisms with which to pro-  
2       vide Federal technical assistance for dam safety to  
3       the non-Federal sector.

4       (d) COMPONENTS.—

5           (1) IN GENERAL.—The national dam safety  
6       program shall consist of a Federal element and a  
7       non-Federal element and 3 functional activities:  
8       leadership, technical assistance, and public aware-  
9       ness.

10       (2) ELEMENTS.—

11           (A) FEDERAL ELEMENT.—The Federal  
12       element of the program incorporates all the ac-  
13       tivities and practices undertaken by Federal  
14       agencies to implement the Federal Guidelines  
15       for Dam Safety.

16           (B) NON-FEDERAL ELEMENT.—The non-  
17       Federal element of the program involves the ac-  
18       tivities and practices undertaken by participat-  
19       ing States, local governments, and the private  
20       sector to safely build, regulate, operate, and  
21       maintain dams and Federal activities which fos-  
22       ter State efforts to develop and implement ef-  
23       fective programs for the safety of dams.

24       (3) ACTIVITIES.—

1           (A) LEADERSHIP ACTIVITY.—The leader-  
2           ship activity of the program shall be the respon-  
3           sibility of FEMA. FEMA shall coordinate Fed-  
4           eral efforts in cooperation with appropriate  
5           Federal agencies and State dam safety agen-  
6           cies.

7           (B) TECHNICAL ASSISTANCE ACTIVITY.—  
8           The technical assistance activity of the program  
9           involves the transfer of knowledge and technical  
10          information among the Federal and non-Fed-  
11          eral elements.

12          (C) PUBLIC AWARENESS ACTIVITY.—The  
13          public awareness activity provides for the edu-  
14          cation of the public, including State and local  
15          officials, to the hazards of dam failure and  
16          ways to reduce the adverse consequences of  
17          dam failure and related matters.

18          (e) GRANT ASSISTANCE PROGRAM.—The Director  
19          shall develop an implementation plan which shall dem-  
20          onstrate dam safety improvements through fiscal year  
21          2001 and shall recommend appropriate roles for Federal  
22          agencies and for State and local units of government, indi-  
23          viduals, and private organizations. The implementation  
24          plan shall provide, at a minimum, for the following:

(1) In order to encourage the establishment and maintenance of effective programs intended to ensure dam safety to protect human life and property and to improve such existing programs, the Director shall provide, from amounts made available under section 8 of this Act, assistance to participating States to establish and maintain dam safety programs, first, according to the basic provisions for a dam safety program listed below and, second, according to more advanced requirements and standards authorized by the review board under paragraph (3) and the Director with the assistance of established criteria such as the Model State Dam Safety Program. Participating State dam safety programs must be working toward meeting the following primary criteria to be eligible for primary assistance or must meet the following primary criteria prior to working toward advanced assistance:

(A) A dam safety program must be authorized by State legislation to include, at a minimum, the following:

(i) Authority to review and approve plans and specifications to construct, enlarge, modify, remove, or abandon dams.

1           (ii) Authority to perform periodic in-  
2           spections during construction for the pur-  
3           pose of ensuring compliance with approved  
4           plans and specifications.

5           (iii) Upon completion of construction,  
6           a requirement that, before operation of the  
7           structure, State approval is received.

8           (iv) Authority to require or perform  
9           the inspection of all dams and reservoirs  
10          that pose a significant threat to human life  
11          and property in the event of failure at least  
12          every 5 years to determine their continued  
13          safety and a procedure for more detailed  
14          and frequent safety inspections.

15          (v) A requirement that all inspections  
16          be performed under the supervision of a  
17          registered professional engineer with relat-  
18          ed experience in dam design and construc-  
19          tion.

20          (vi) Authority to issue notices, when  
21          appropriate, to require owners of dams to  
22          perform necessary maintenance or remedial  
23          work, revise operating procedures, or take  
24          other actions, including breaching dams  
25          when deemed necessary.

1 (vii) Rules and regulations for carry-  
2 ing out the provisions of the State's legis-  
3 lative authority and necessary emergency  
4 funds to assure timely repairs or other  
5 changes to, or removal of, a dam in order  
6 to protect human life and property and, if  
7 the owner does not take action, to take ap-  
8 propriate action as expeditiously as pos-  
9 sible.

10 (viii) A system of emergency proce-  
11 dures that would be utilized in the event a  
12 dam fails or in the event a dam's failure  
13 is imminent, together with an identification  
14 of those dams where failure could be rea-  
15 sonably expected to endanger human life  
16 and of the maximum area that could be in-  
17 undated in the event of a failure of the  
18 dam, as well as identification of those nec-  
19 essary public facilities that would be af-  
20 fected by such inundation.

21 (B) State appropriations must be budgeted  
22 to carry out the provisions of the State legisla-  
23 tion.

24 (2) The Director shall enter into contracts with  
25 each participating State to determine a work plan

1       necessary for a particular State dam safety program  
2       to reach a level of program performance previously  
3       agreed upon in the contract. Federal assistance  
4       under this Act shall be provided to aid the State  
5       dam safety program in achieving its goal.

6               (3)(A) There is authorized to be established a  
7       National Dam Safety Review Board (hereinafter in  
8       this Act referred to as the “Board”), which shall be  
9       responsible for monitoring participating State imple-  
10      mentation of the requirements of the assistance pro-  
11      gram. The Board is authorized to utilize the exper-  
12      tise of other agencies of the United States and to  
13      enter into contracts for necessary studies to carry  
14      out the requirements of this section. The Board  
15      shall consist of 11 members selected for their exper-  
16      tise in dam safety as follows:

17               (i) 5 to represent FEMA, the Federal En-  
18      ergy Regulatory Commission, and the Depart-  
19      ments of Agriculture, Defense, and Interior.

20               (ii) 5 members selected by the Director  
21      who are dam safety officials of States.

22               (iii) 1 member selected by the Director to  
23      represent the United States Committee on  
24      Large Dams.

1           (B) Each member of the Board who is an offi-  
2           cer or employee of the United States shall serve  
3           without compensation in addition to compensation  
4           received for the services of the member as an officer  
5           or employee of the United States. Each member of  
6           the Board who is not an officer or employee of the  
7           United States shall serve without compensation.

8           (C) Each member of the Board shall be allowed  
9           travel expenses, including per diem in lieu of subsist-  
10          ence, at rates authorized for an employee of an  
11          agency under subchapter I of chapter 57 of title 5,  
12          United States Code, while away from home or regu-  
13          lar place of business of the member in the perform-  
14          ance of services for the Board.

15          (D) The Federal Advisory Committee Act (5  
16          U.S.C. App.) shall not apply to the Board.

17          (4) No grant may be made to a participating  
18          State under this section in any fiscal year unless the  
19          State enters into such agreement with the Director  
20          as the Director may require to ensure that the par-  
21          ticipating State will maintain its aggregate expendi-  
22          tures from all other sources for programs to assure  
23          dam safety for the protection of human life and  
24          property at or above the average level of such ex-



1       penditures in its 2 fiscal years preceding the date of  
2       the enactment of this Act.

3           (5) Any program which is submitted to the Di-  
4       rector for participation in the assistance program  
5       under this section shall be deemed approved 120  
6       days following its receipt by the Director unless the  
7       Director determines within such 120-day period that  
8       the submitted program fails to reasonably meet the  
9       requirements of paragraphs (1) and (2). If the Di-  
10      rector determines the submitted program cannot be  
11      approved for participation, the Director shall imme-  
12      diately notify the State in writing, together with his  
13      or her reasons and those changes needed to enable  
14      the submitted program to be approved.

15           (6) Utilizing the expertise of the Board, the Di-  
16      rector shall periodically review the approved State  
17      dam safety programs. In the event the Board finds  
18      that a program of a participating State has proven  
19      inadequate to reasonably protect human life and  
20      property and the Director agrees, the Director shall  
21      revoke approval of the State's participation in the  
22      assistance program and withhold assistance under  
23      this Act, until the State program has been re-  
24      approved.

1           (7) The head of any Federal agency, when re-  
2           requested by any State dam safety agency, shall pro-  
3           vide information on the construction, operation, or  
4           maintenance of any dam or allow officials of the  
5           State agency to participate in any Federal inspection  
6           of any dam.

7           (8) Within 180 days after the date of the enact-  
8           ment of this Act, the Director shall report to the  
9           Congress on the availability of dam insurance and  
10          make recommendations.

11 **SEC. 6. BIENNIAL REPORT.**

12          Within 90 days after the last day of each odd-num-  
13          bered fiscal year, the Director shall submit a biennial re-  
14          port to Congress describing the status of the program  
15          being implemented under this Act and describing the  
16          progress achieved by the Federal agencies during the 2  
17          previous years in implementing the Federal Guidelines for  
18          Dam Safety. Each such report shall include any rec-  
19          ommendations for legislative and other action deemed nec-  
20          essary and appropriate. The report shall also include a  
21          summary of the progress being made in improving dam  
22          safety by participating States.

23 **SEC. 7. AUTHORIZING OF APPROPRIATIONS.**

24          (a) GENERAL PROGRAM.—

1           (1) FUNDING.—There are authorized to be ap-  
2           propriated to the Director to carry out the provi-  
3           sions of sections 5 and 6 of this Act (in addition to  
4           any authorizations for similar purposes included in  
5           other Acts and the authorizations set forth in sub-  
6           sections (b) through (e) of this section)—

7                     (A) \$1,000,000 for fiscal year 1997;

8                     (B) \$2,000,000 for fiscal year 1998;

9                     (C) \$4,000,000 for fiscal year 1999;

10                    (D) \$4,000,000 for fiscal year 2000; and

11                    (E) \$4,000,000 for fiscal year 2001.

12           (2) APPORTIONMENT FORMULA.—Sums appro-  
13           priated under this subsection shall be distributed an-  
14           nually among participating States on the following  
15           basis: One-third among those States determined in  
16           section 5 of this Act as qualifying for funding, and  
17           two-thirds in proportion to the number of dams and  
18           appearing as State-regulated dams on the National  
19           Dam Inventory in each participating State that has  
20           been determined in section 5(e)(1) of this Act as  
21           qualifying for funding, to the number of dams in all  
22           participating States. In no event shall funds distrib-  
23           uted to any State under this subsection exceed 50  
24           percent of the reasonable cost of implementing an  
25           approved dam safety program in such State. The Di-

1 rector and Review Board shall determine how much  
2 is allotted to participating States needing primary  
3 funding and those needing advanced funding.

4 (b) TRAINING.—

5 (1) IN GENERAL.—The Director shall, at the  
6 request of any State that has or intends to develop  
7 a dam safety program under section 5(e)(1) of this  
8 Act, provide training for State dam safety staff and  
9 inspectors.

10 (2) FUNDING.—There is authorized to be ap-  
11 propriated to carry out this subsection \$500,000 for  
12 each of fiscal years 1997 through 2001.

13 (c) RESEARCH.—

14 (1) IN GENERAL.—The Director shall under-  
15 take a program of technical and archival research in  
16 order to develop improved techniques, historical ex-  
17 perience, and equipment for rapid and effective dam  
18 construction, rehabilitation, and inspection, together  
19 with devices for the continued monitoring, of dams  
20 for safety purposes.

21 (2) STATE PARTICIPATION; REPORTS.—The Di-  
22 rector shall provide for State participation in the re-  
23 search under this subsection and periodically advise  
24 all States and Congress of the results of such re-  
25 search.

1           (3) FUNDING.—There is authorized to be ap-  
2       propriated to carry out this subsection \$1,000,000  
3       for each of fiscal years 1997 through 2001.

4       (d) DAM INVENTORY.—

5           (1) MAINTENANCE AND PUBLICATION.—The  
6       Secretary of the Army, acting through the Chief of  
7       Engineers, is authorized to maintain and periodically  
8       publish updated information on the inventory of  
9       dams.

10          (2) FUNDING.—There is authorized to be ap-  
11       propriated to carry out this subsection \$500,000 for  
12       each of fiscal years 1997 through 2001.

13       (e) PERSONNEL.—

14           (1) EMPLOYMENT.—The Director is authorized  
15       to employ additional staff personnel in numbers suf-  
16       ficient to carry out the provisions of this Act.

17          (2) FUNDING.—There is authorized to be ap-  
18       propriated to carry out this subsection \$400,000 for  
19       each of fiscal years 1997 through 2001.

20       (f) LIMITATION.—No funds authorized by this Act  
21       shall be used to construct or repair any Federal or non-  
22       Federal dams.

23       **SEC. 8. CONFORMING AMENDMENTS.**

24       The Act entitled “An Act to authorize the Secretary  
25       of the Army to undertake a national program of inspection

1 dams”, approved August 8, 1972 (33 U.S.C 467–467m;  
2 Public Law 92–367), is amended—

3           (1) in the first section by striking “means any  
4       artificial barrier” and all that follows through the  
5       period at the end and inserting “has the meaning  
6       such term has under section 4 of the National Dam  
7       Safety Program Act of 1996.”;

8           (2) by striking the 2d sentence of section 3;

9           (3) by striking section 5 and sections 7 through  
10       14; and

11          (4) by redesignating section 6 as section 5.

○